NAVFAC Naval Facilities Engineering Command

NAVFAC Southwest

Update on the TPH Investigation at the Combined Site in Parcel B (CAA-21, CAA-22, AOC-46-A, AOC-46-B, AOC-46-C, and AOC 24-C)

Hunters Point Naval Shipyard BCT Meeting

4/24/2014

Presentation Outline

- Previously Identified Data Gaps
- Summary of Tasks Completed to Date
- Presentation of Investigation Results, Including Step-Out Sampling Data
- Shoreline Revetment Completion
- Schedule Update

Previously Identified Data Gaps

PAH Data Gaps:

- Data collected adequately delineate the extent of PAH contamination – no step-outs for PAHs

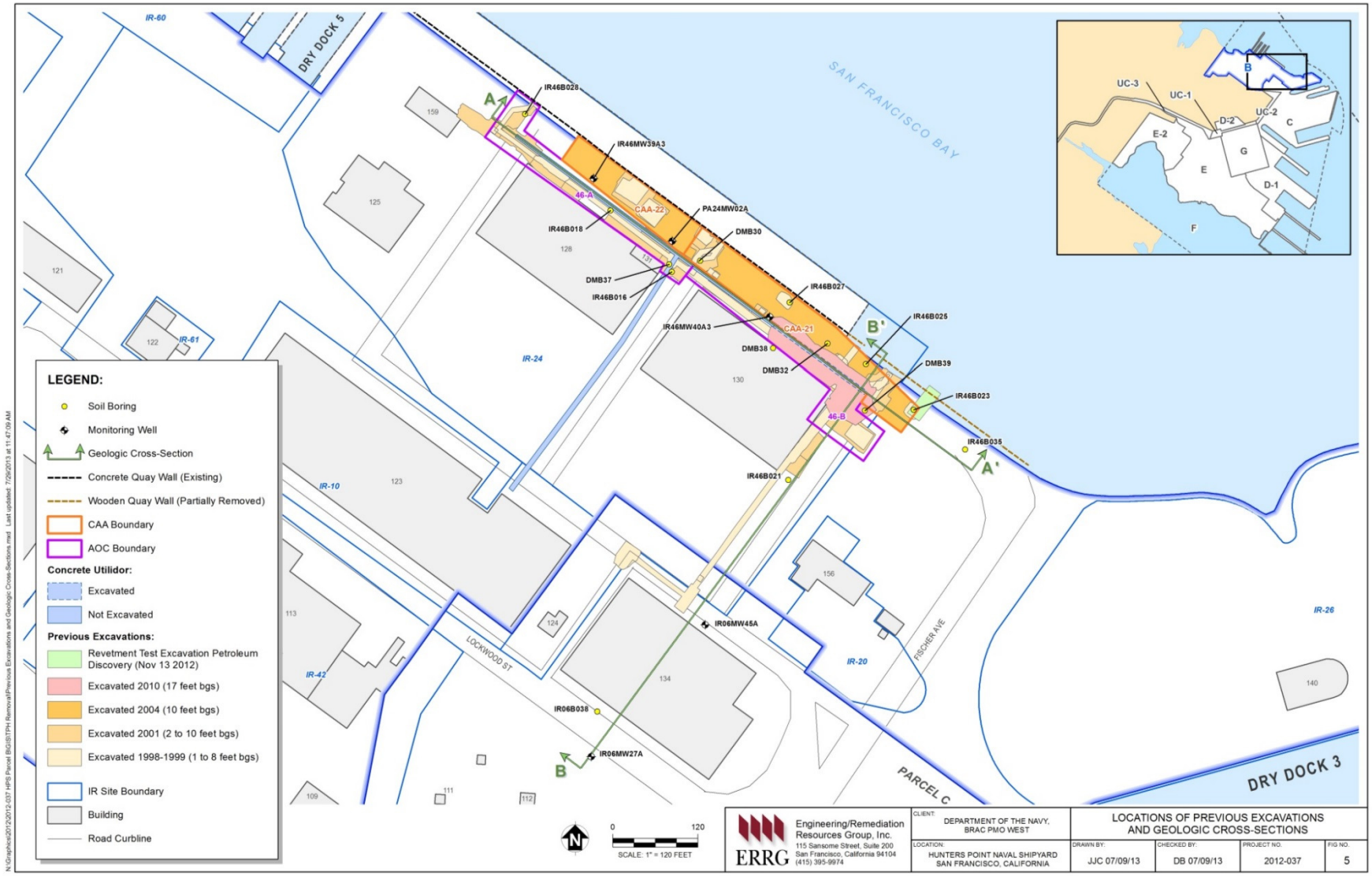
TPH Data Gaps (Soil):

- 11 step-out borings were advanced to delineate TPH
- Soil samples targeted depths between 10 and 25 feet bgs along the bay side of Building 130 to delineate the southern extent of contamination
- 1 boring was advanced to verify if deep soil contamination (between 15-25' feet bgs) is present at historical boring IR24MW28A where the final portion of the revetment structure is to be constructed

TPH Data Gaps (Pore Water):

- 2 additional pore water samples were collected on the bay side of the quay wall to bound the limits of the areas exceeding the Total TPH action level (1,400 µg/L)
- 1 soil boring was advanced at pore water sample location IR24B102 (samples at 15, 20, and 25 feet bgs) to determine if contaminated soil is present on the bay side of the wall

Map of Combined Site



Summary of Tasks Completed to Date

Task 1: Refine the extent of remaining TPH/PAH contamination in soil within the Combined Site

- 40 borings advanced in December 2013 up to 40 feet bgs
  - 141 soil samples analyzed for TPHd and TPHmo
  - 31 samples analyzed for TPHg and 27 samples analyzed for PAHs
- 11 step-out borings advanced in February 2014 to up to 25 feet bgs
  - 30 soil samples analyzed for TPHd and TPHmo
  - 5 samples analyzed for TPHg

Summary of Tasks Completed to Date (cont.)

Task 2: Evaluate potential TPH migration from the Combined Site to San Francisco Bay

- 13 pore water samples (12 samples + 1 duplicate) collected in December 2013 via hydropunch and analyzed for TPH
  - Locations spaced approximately 50 feet apart, approximately 1 foot into the sediment
- 3 step-out pore water samples (2 samples + 1 duplicate) collected on in February 2014 via hydropunch and analyzed for TPH

Soil Sampling Results and Conclusions

General Conclusion:

- Clean backfill between 0 and at least 8 feet bgs has not been re-contaminated (i.e., exceeding soil action levels) by deeper contamination (see 0-10' bgs TPH in soil map)

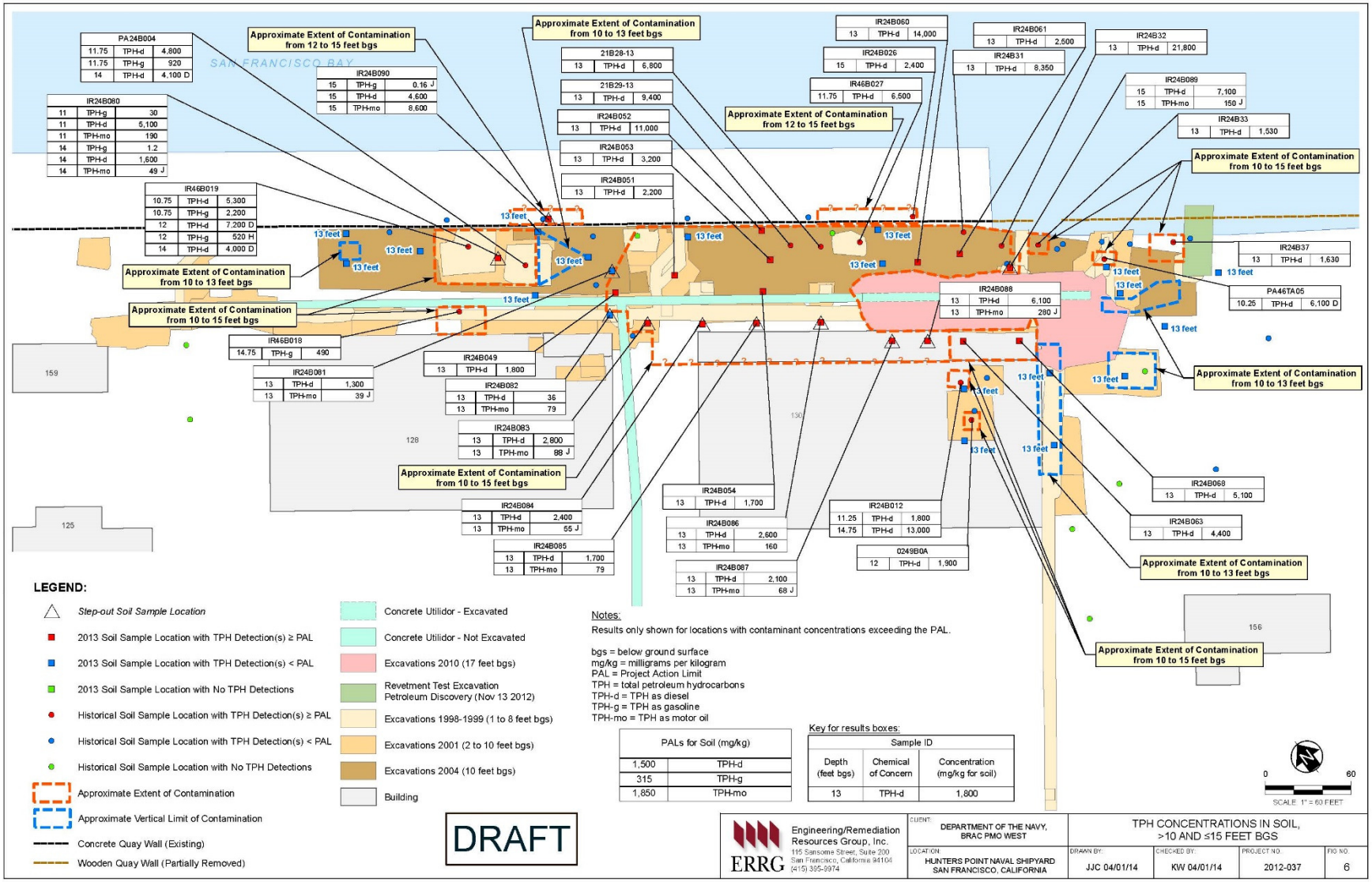
PAH Results:

- PAH contamination is non-contiguous and limited in extent
- Data collected to date adequately delineate the extent of PAH contamination

TPH Results (Soil):

- TPH contamination is widespread and predominantly present in the 10-15' bgs range
- TPH contamination extends to 18' bgs (<PALs in 23' samples) in limited areas
- The extent of TPH contamination is not laterally bounded to the southwest of the Combined Site (beneath Building 130 as you move inland from the bay)
- Deep (25' bgs) TPHd contamination reported in historical boring IR24MW28A is not present in 20' and 25' bgs samples from new boring IR24B089 (Figure 6)

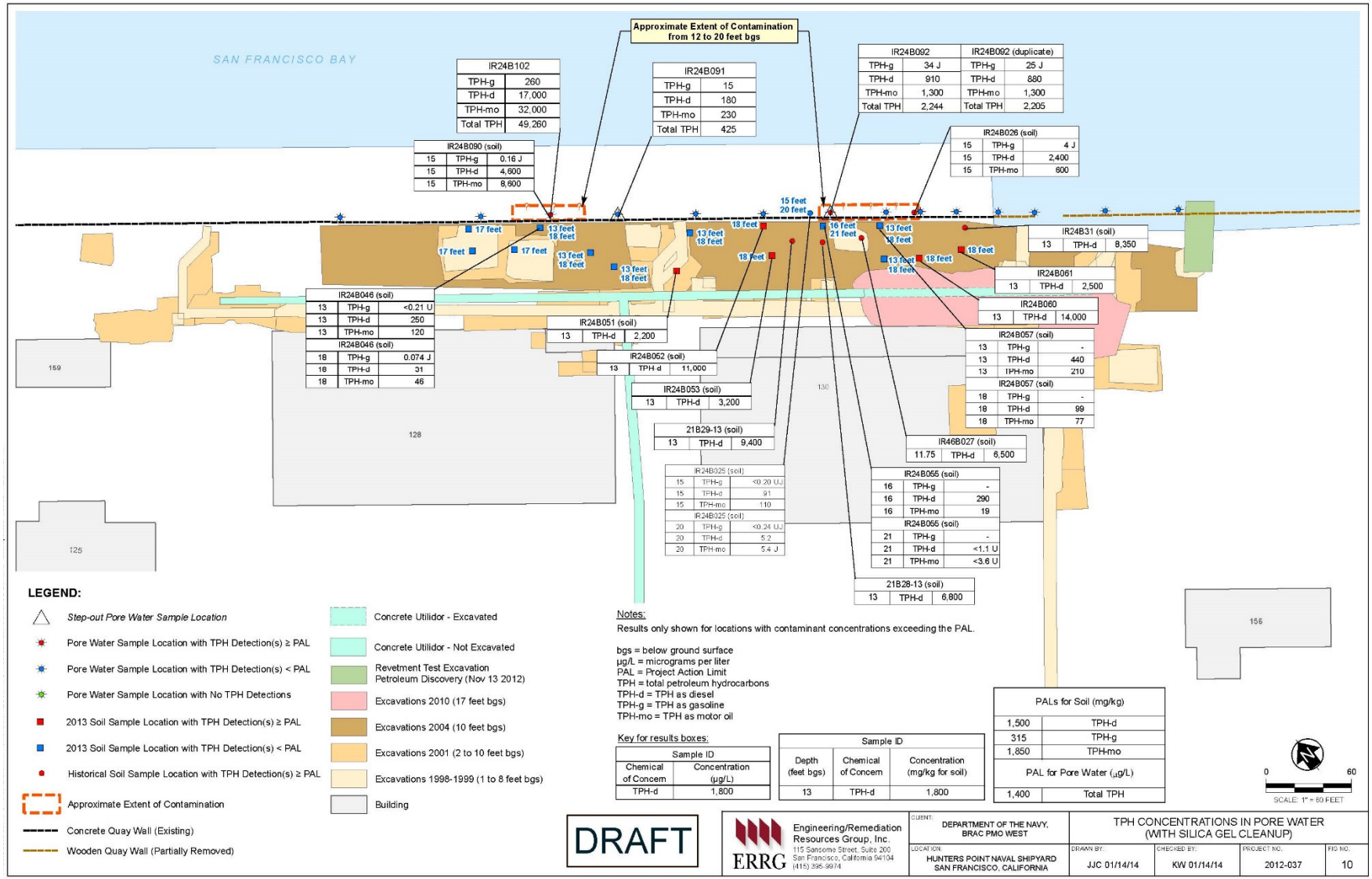
Soil Sample Results Map (see handouts)



Pore Water Sampling Results

- Two Total TPH PAL exceedances on the bay side of the quay wall (IR24B102 at 49,260 µ/L and IR24B092 at 2,244 µ/L)
  - Source is likely TPH in soil on the bay side of the quay wall
- Pore water sample IR24B102 and soil boring IR24B090 show TPHmo is the primary constituent
  - Soil inland of the quay wall at this location shows TPHd as primary constituent and does not exceed PALs
- Pore water sample IR24B092 shows TPHmo is the primary constituent (soil sample not collected).
  - Soil inland of the quay wall at this location shows TPHd as the primary constituent and does not exceed PALs
- Pore water from IR24B092 and IR24B102 contain primarily TPHmo with lesser fractions of TPHd.
- ***Soil inland of the quay wall does not appear to be a source to pore water***

Pore Water Sample Results Map (see handouts)



Shoreline Revetment Completion

- 230 LF of revetment remains to be constructed to complete the Parcel B RA
- The Navy is planning to remove TPH-contaminated soil as remaining revetment is being constructed
- Deep surgical excavations (13'-18' bgs) will be required to remove the 5 areas of significant contamination within the new revetment footprint
- Geotechnical samples were collected from the unconstructed revetment area to support a shoring design for the excavations

Schedule Update

Work Plan Strategy Mtg with WB & SFDPH	July 31, 2013
Submitted Final Work Plan	Nov 21, 2013
Primary Sample Collection	Dec 2 - Dec 12, 2013
Present Results at BCT Mtg	Jan 23, 2014
Step-Out Sample Collection	Feb 2014
Present Step-Out Results at BCT Mtg	Apr 24, 2014
Submit Draft Tech Memo	May 2014
Submit Final Tech Memo	June 2014
Complete 230 feet of Revetment	Fall 2014 (est.)
Issue new contract to address remaining TPH contamination at Combined Site	Fall/Winter 2014 (est.)

- Note: the tech memo will include summary of the investigations results, delineation of contamination, updated CSM, evaluation of closure alternatives, recommended approach to Combined Site closure